

CLAIMS

- 1) A food flour with specific technological and nutritional characteristics, such as the ability to rise and low allergenicity;
- 2) A food flour, as in claim 1, derived from the seed of a plant obtained by inserting in its genome one or more genes that code for wheat storage proteins;
- 3) A food flour derived from the seed of a plant obtained by inserting in its genome one gene that codes for the transglutaminase enzyme;
- 4) A food flour derived from the seed of a plant obtained by inserting in its genome different combinations of the genes indicated in claims 2 and 3;
- 5) A food flour derived from the seed of a genetically modified plant of rice by inserting in its genome the genes according to claim 4;
- 6) A food flour derived from the seed of a genetically modified plant of corn by inserting in its genome the genes according to claim 4;
- 7) A food flour derived from the seed of a genetically modified plant of soybean by inserting in its genome the genes according to claim 4;
- 8) A nucleotide sequence that codes for the aminoacid sequence LKVAKAQQLAAQLPAMCR present in the C-terminal part of a class of storage proteins of wheat;
- 9) A recombinant plasmid including: (i) a DNA regulatory sequence of a specific plant; (ii) a structural sequence for storage proteins of wheat;

- 10) A recombinant plasmid including: (i) a DNA regulatory sequence of a specific plant, for example rice; (ii) a structural sequence of a storage protein of wheat, containing the aminoacid sequence of claim 8;
- 11) A recombinant plasmid including: (i) a DNA regulatory sequence of a specific plant; (ii) a structural sequence of wheat storage protein, genetically modified by means of techniques of protein engineering to eliminate specific epitopes;
- 12) A recombinant plasmid, according to claims 9 and 11, where the regulation sequence of the expression cassette comes from the gene corresponding to the wheat storage protein;
- 13) A recombinant plasmid, according to claims 9, where the regulation sequence of the expression cassette comes from the gene corresponding to the storage protein of a cereal or of a legume;
- 14) A recombinant plasmid, according to claim 9, where the structural sequence corresponds to the enzymatic protein transglutaminase.
- 15) Plant cells transformed with the DNA of one of the claims from 9 to 14;
- 16) Plant cells transformed with the DNA of two or more of the claims from 9 to 14 in different combinations;
- 17) Transgenic plants expressing the genes present in the plasmids of the claims from 9 to 14;
- 18) Transgenic plants expressing the genes present in two or more of the plasmids of the claims from 9 to 14;

- 19) The production of flours from the seeds of the plants of claims from 2 to 7, obtained with specific milling techniques;
- 20) The production of baked products obtained from flours or protein concentrates of claim 19;
- 21) The production of the transglutaminase enzyme from flours derived from the seeds of plants of claims 3, 4, 5, 6 and 7.